

Thursday, December 12, 2019

Attn: Mr. Keith Gammell Barnhardt Mfg. Co. 247 Main Rd P.O. Box 3 Colrain, MA 01340

Project ID: NPDES DECEMBER 2019

SDG ID: GCE80284 Sample ID#s: CE80284

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

Phyllis/Shiller

Laboratory Director

NELAC - #NY11301 CT Lab Registration #PH-0618 MA Lab Registration #M-CT007 ME Lab Registration #CT-007

NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003 NY Lab Registration #11301 PA Lab Registration #68-03530 RI Lab Registration #63 UT Lab Registration #CT00007 VT Lab Registration #VT11301



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

Sample Id Cross Reference

December 12, 2019

SDG I.D.: GCE80284

Project ID: NPDES DECEMBER 2019

Client Id	Lab Id	Matrix
EFFLUENT	CE80284	WASTE WATER



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Analysis Report

December 12, 2019

FOR: Attn: Mr. Keith Gammell

Barnhardt Mfg. Co.

247 Main Rd P.O. Box 3

Colrain, MA 01340

Sample InformationCustody InformationDateTimeMatrix:WASTE WATERCollected by:12/04/197:00Location Code:BARNHARDReceived by:SW12/04/1915:35

aboratory Data

Rush Request: Standard Analyzed by: see "By" below

P.O.#: G10513

SDG ID: GCE80284

Phoenix ID: CE80284

Project ID: NPDES DECEMBER 2019

Client ID: EFFLUENT

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	Ву	Reference
Copper	0.028	0.003	mg/L	1	12/07/19	CPP	E200.7
B.O.D./5 day	13	4.0	mg/L	2	12/05/19 12:00	RVM/RM	1 SM 5210B-11
B.O.D./5 day End Incubation					12/10/19 14:59	RVM/RM	1 SM 5210B-11
C.O.D.	250	10	mg/L	1	12/06/19	NLM	SM 5220C-11
Ammonia as Nitrogen	0.77	0.25	mg/L	5	12/07/19	KDB	E350.1
Nitrite-N	4.24	0.100	mg/L	10	12/04/19 19:52	TB	E353.2
Nitrate-N	1.71	0.20	mg/L	10	12/04/19 19:52	TB	E353.2
Nitrogen Tot Kjeldahl	10.8	0.50	mg/L	5	12/07/19	KDB	E351.1
Total Nitrogen	16.8	0.10	mg/L	1	12/07/19	KDB	SM4500NH3/E300.0-11
Phosphorus, as P	2.04	0.10	mg/L	10	12/11/19	JR	SM4500PE-11
Total Suspended Solids	53	17	mg/L	3.3	12/05/19	NLM	SM 2540D-11
Total Metals Digestion	Completed				12/06/19	AG	

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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Phyllis Shiller, Laboratory Director

December 12, 2019

Reviewed and Released by: Rashmi Makol, Project Manager



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QA/QC Report

December 12, 2019

QA/QC Data

SDG I.D.: GCE80284

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 509171 (mg/L), C	2C Sam	ole No: 0	CE80481	(CE802	84)								
ICP Metals - Aqueous													
Copper	BRL	0.0025	0.054	0.0546	1.10	104	103	1.0	109			75 - 125	20



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QA/QC Report

December 12, 2019

QA/QC Data

SDG I.D.: GCE80284

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 509204 (mg/L), (C Samp	ole No:	CE80145	(CE802	84)								
C.O.D. Comment:	BRL	10	<10	<10	NC	103			116			85 - 115	20
Additional: LCS acceptance range	e is 85-11	5% MS	acceptance	e range 7	75-125%								
QA/QC Batch 508938 (mg/L), 0	2C Samp	ole No:	CE80209	(CE802	84)								
Total Suspended Solids	BRL	2.5	9.3	11	NC	98.0						85 - 115	
QA/QC Batch 509705 (mg/L), 0	C Samp	ole No:	CE80257	(CE802	84)								
Phosphorus, as P Comment:	BRL	0.01	2.18	2.24	2.70	101			106			85 - 115	20
Additional: LCS acceptance range	e is 85-11	5% MS	acceptance	e range 7	75-125%								
QA/QC Batch 508939 (mg/L), 0	C Samp	ole No:	CE80472	(CE802	84)								
B.O.D./5 day	BRL	2.0	<4.0	<4.0	NC	84.8			104			70 - 130	20
B.O.D./5 day GGA BOD						94.7						84 - 115	20
QA/QC Batch 508872 (mg/L), 0	C Samp	ole No:	CE80451	(CE802	84)								
Nitrate-N	BRL	0.02	< 0.02	< 0.02	NC	100			101			90 - 110	20
Nitrite-N	BRL	0.01	< 0.010	< 0.01	NC	96.0			105			90 - 110	20
QA/QC Batch 509164 (mg/L), 0	C Samp	ole No:	CE80264	(CE802	84)								
Ammonia as Nitrogen	BRL	0.05	36.2	35.6	1.70	102			105			90 - 110	20
Nitrogen Tot Kjeldahl Comment:	BRL	0.10	49.4	49.4	0	102			102			85 - 115	20
TKN is reported as Organic Nitrog	jen in the	Blank, I	_CS, DUP	and MS.									

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis/Shiller, Laboratory Director

December 12, 2019

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Sample Criteria Exceedances Report GCE80284 - BARNHARD

Criteria: None State: MA

RL Analysis SampNo Acode Phoenix Analyte Criteria Units

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

^{***} No Data to Display ***



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Analysis Comments

December 12, 2019 SDG I.D.: GCE80284

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report: None.

East Middle Tumple P O Box 370, Manchester, CT 00040 Face Face Middle Tumple P O Box 370, Manchester, CT 00040 Face	
Project:	Environmental Laboratories, Inc.
Completed Comp	65) 04W CVC
A	0 7
	Client Sample - Information - Identification
	Matrix Code: DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water RW=Raw Water SE=Sediment SL=Sludge S=Soil SD=Solid W=Wipe OIL=Oil B=Bulk L=Liquid X =
1	Sample Date Time Matrix Sampled Sampled
	13-419
	2007 Pr4-CI MM
	WW 12-4-19 Jan
Name	ww 12-4-19 Jan
Max	WW 12-4-19 Zam
MA	ww 12-419 you
MA	
MA	
MA	
CI MA CI MA CI MA Cit Cit MA Certification Direct Exposure Comm/Industrial) CW Protection CW-1 MWRA eswART Comm/Industrial) CW Protection CW-2 CW-3 CM CM CW-3 CM CM CM CM CM CM CM C	
4.43 (Residential) RCP Cert MCP Certification Direct Exposure GW-1 MWRA eswART State where samples were collected: MCP Certification GW-2 GW-2 GW-3 GA Leachability GB Mobility S-1 GW-1 S-1 GW-2 S-1 GW-3 GA-GW GA-GW CDEC S-3 GW-1 S-2 GW-1 S-3 GW-2 S-3 GW-3 GA-GW CDEC S-3 GW-1 S-3 GW-2 S-3 GW-3 GB-GW CDEC S-3 GW-1 S-3 GW-2 S-3 GW-3 GB-GW CDEC S-3 GW-1 S-3 GW-2 S-3 GW-3 GB-GW CDEC S-3 GW-1 S-3 GW-2 S-3 GW-3 CDEC S-3 GW-1 S-3 GW-2 S-3 GW-1 S-3 GW-2 S-3 GW-3 CDEC S-3 GW-1 S-3 GW-2 S-3 GW-2 S-3 GW-1 S-3 GW-2 S-3 GW-1 S-3 GW-2 S-3 GW-1 S-3 GW-2 S-3 GW-1 S-3 GW-2 S-3 GW-2 S-3 GW-1 S-3 GW-2 S-3 GW-2 S-3 GW-1 S-3 GW-2 S-3 GW-1 S-3 GW-2 S-3 GW-2 S-3 GW-2 S-3 GW-2 S-3 GW-1 S-3 GW-2 S-3 GW-1 S-3 GW-2 S-3 GW-1 S-3 GW-2 S-3 GW-2 S-3 GW-2 S-3 GW-2 S-3 GW-1 S-3 GW-2 S-3 GW-1 S-3 GW-2 S-3 GW-1 S-3 GW-2 S	ed by: Date: Tim
Comm/Industrial GW Protection GW-1 MwRA eSMART Comm/Industrial GW Protection GW-2 GW-2 GW-3 GW-3 GB Leachability GB Mobility S-1 GW-1 S-1 GW-2 S-1 GW-3 GA-GW GA-GW I/C DEC S-3 GW-1 S-3 GW-2 S-3 GW-3 GB-GW G	/ went 2 / / / / / / / / / / / / / / / / / /
Galeachability Gale	7/7
GA Leachability GA Mobility S-1 GW-1 S-1 GW-2 S-1 GW-3 GB Leachability GB Mobility S-2 GW-1 S-2 GW-2 S-2 GW-3 GA-GW CD DEC S-3 GW-1 S-3 GW-2 S-3 GW-3 GB-GW CD DEC S-3 GW-1 S-3 GW-2 S-3 GW-3 GB-GW CB-GW CB-GW	2
GB Leachability GB Mobility S-2 GW-1 S-2 GW-2 S-2 GW-3 Residential DEC S-3 GW-1 S-3 GW-2 S-3 GW-3 GA-GW I/C DEC S-3 GW-1 S-3 GW-2 S-3 GW-3 GB-GW Other State where samples were collected: GB-GW State where samples were collected:	Comments, Special Requirements or Regulations:
GA-GW Objectives State where samples were collected:	1 Day*
GB-GW State where samples were collected:	3 Days*
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